

within the ROSA while conforming to ROSA size and pin count constraints that are imposed required by many fiber optic receiver designs.

MPEP § 2143.03 requires that (emphasis added):

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

In his rejection of independent claim 1, however, the Examiner has failed to find in the cited references a teaching or suggestion of all the claim limitations recited in claim 1. In particular, the Examiner has failed to point to any teaching in any of the cited references of a fiber optic receiver that comprises: (1) a ROSA that comprises a lens assembly and houses an opto-electronic transducer and an adjustable response preamplifier circuit; and (2) a mode selection circuit that is located outside of the ROSA.

Instead of adhering to a proper standard for establishing a *prima facie* case of obviousness, the Examiner has merely argued that "making parts separable or changing the placement of parts is not considered patentable over the prior art." While it may be easier for the Examiner to simply sweep inconvenient claim limitations into the "separable parts" category or the "changed placement of parts" category and then reject a claim on this basis alone, such an approach is improper because it invites the Examiner to substitute his undisciplined gut feelings about a claim for a proper, rigorous analysis of the claim language. For this reason, the MPEP prohibits the Examiner from rejecting a claim in this way. For example, regarding the "rearrangement of parts" doctrine, the MPEP § 2144.04 IV.C explains that the Examiner cannot merely invoke the doctrine without finding in the cited references the requisite motivation or reason for one skilled in the art to arrive at the arrangement of features recited in the claims (emphasis added):

"The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

Thus, the Examiner is prohibited from resting his obviousness rejecting entirely on the unsubstantiated assertion that "it would have been obvious to one of ordinary skill in the art at the time of invention [that] the mode selection switch can be placed outside the sub-assembly" based solely on the assertion that "[m]aking parts separable or changing the position of parts is not patentable over the prior art."

For the Examiner's edification, the examiner is reminded that:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not on applicants' disclosure.

MPEP § 706.02(j) (emphasis added). Furthermore, as pointed out by the Patent Office Board of Appeals and Interferences:

The examiner should be aware that "deeming" does not discharge him from the burden of providing the requisite factual basis and establishing the requisite motivation to support a conclusion of obviousness.

Ex parte Stern, 13 USPQ2d 1379 (BPAI 1989).

To summarize, by failing to point to any teaching or suggestion in any of the cited references that would have led one of ordinary skill in the art to a fiber optic receiver that comprises: (1) a ROSA that comprises a lens assembly and houses an opto-electronic transducer and an adjustable response preamplifier circuit; and (2) a mode selection circuit that is located outside of the ROSA, the Examiner has failed to establish a proper *prima facie* case of obviousness. For at least this reason, the Examiner's rejection of independent claim 1 under 35 U.S.C. § 103(a) over Buescher in view of North and Jiang should be withdrawn.

In addition, the Examiner has denigrated claim 1 by improperly characterizing the recited features as merely "making parts separable or changing the placement of parts". Claim 1 explicitly recites a particular non-obvious arrangement of (a) a ROSA, (b) a lens assembly, (c) an opto-electronic transducer, (d) an adjustable response preamplifier circuit, and (e) a mode selection circuit that achieves specific tangible advantages that are not

achievable by prior fiber optic receiver designs. In particular, this non-obvious arrangement of elements allows an adjustable response preamplifier to be incorporated within a ROSA having a small size and a limited pin count. As a result, the fiber optic receiver recited in claim 1 may accommodate multiple operating modes (e.g., multiple bandwidth and power modes) while conforming to existing ROSA size and pin count constraints. This feature enables the analog electrical data signals generated by the opto-electronic transducer to be amplified, filtered, and shaped optimally for data recovery, while allowing the receiver to be housed within a package sized to fit within fiber optic communication devices with significant size constraints.

Thus, contrary to the Examiner's assertion, the inventive contribution of the fiber optic receiver recited in independent claim 1 is not "making parts separable or changing the placement of parts," but rather the non-obvious arrangement of elements that achieves the specific, tangible advantages described in the preceding paragraph.

In conclusion, the Examiner has failed to point to any teaching or suggestion in any of the cited references that would have led one of ordinary skill in the art to a fiber optic receiver that comprises: (1) a ROSA that comprises a lens assembly and houses an opto-electronic transducer and an adjustable response preamplifier circuit; and (2) a mode selection circuit that is located outside of the ROSA. For at least these reasons, the Examiner's rejection of independent claim 1 under 35 U.S.C. § 103(a) over Buescher in view of North and Jiang should be withdrawn.

Each of claims 2, 3, 8, 10-17, and 19 incorporates the features of independent claim 1 and therefore is patentable for at least the same reasons explained above.

III. Claims 4-7 and 9

Claim 4 recites that the mode selection circuit is configured to modulate the mode control signal onto at least one common line coupled between the preamplifier circuit and the post-amplifier circuit.

The only argument presented by the Examiner to support is rejection of independent claim 4 is his assertion that:

[T]he modified invention of Buescher and North wherein the mode selection circuit is configured to modulate the mode control signal onto a common line coupled between the

preamplifier circuit and the postamplifier circuit (North Figure 4 (474)).

Contrary to the Examiner's assertion, however, the mode control signal (labeled "MODE" in FIG. 4) generated by North's mode selection circuit 470 is not modulated onto a line coupled between a preamplifier circuit and a post-amplifier circuit. Instead, North explains that the mode control signal is applied either to a switch 474 or an AGC control circuit 456 (col. 10, lines 1-6):

The MODE signal output by mode selection circuit 600 subsequently controls ... the AGC control circuit 456 and switch 474 of receiver 450 in FIG. 4 in order to control the receive response bandwidth and input sensitivity of ... [receiver] 450.

The Examiner cannot reasonably dispute that the MODE signal generated by the mode selection circuit 470 is only applied to the input of the AGC control circuit 456 and the input of the switch 474. In addition, when the MODE signal is applied to the switch 474, the MODE signal is not modulated onto the node VA. The MODE signal either opens the switch 474, which removes the bandwidth-limiting capacitor 476 from the receive path, or closes the switch 474, which connects the capacitor 476 to the receive path and thereby limits the response bandwidth of the receiver. Opening and closing the switch 474, however, merely changes the RC time constant associated with node VA, it does not modulate the MODE signal onto the line connected to node VA. That is, North's mode selection circuit 470 is NOT configured to modulate the MODE signal onto at least one common line that is coupled between the preamplifier circuit and the post-amplifier circuit.

The Examiner has not disputed Applicant's assertion that both Buescher and Jiang fail to teach anything about a mode selection circuit for a preamplifier circuit of a fiber optic receiver.

In sum, none of the cited references teaches or suggests a mode selection circuit that is configured to modulate the mode control signal onto at least one common line coupled between the preamplifier circuit and the post-amplifier circuit. Therefore, no permissible combination of the cited references possibly could have led one of ordinary skill in the art at the time of the invention to the inventive fiber optic receiver recited in claim 4. For at least these reasons, the Examiner's rejection of independent claim 4 under 35 U.S.C. § 103(a) over Buescher in view of North and Jiang should be withdrawn.

Each of claims 5-7 and 9 incorporates the features of independent claim 4 and therefore is patentable for at least the same reasons explained above.

IV. Claim 20

Claim 20, which has not been amended, recites that an adjustable response preamplifier circuit is incorporated within a ROSA that is mounted on a substrate, and that a post-amplifier circuit is mounted on the substrate and configured to transmit a mode control signal to the preamplifier circuit over one or more common lines coupled between the preamplifier circuit and the post-amplifier circuit.

For the same reasons explained above in connection with independent claim 1, none of the cited references teaches or suggests a fiber optic receiver that comprises a ROSA incorporating an adjustable response preamplifier circuit, and a post-amplifier circuit mounted on a substrate on which the ROSA is mounted. Therefore, no permissible combination of the cited references could possibly have led one of ordinary skill in the art at the time of the invention to the inventive fiber optic receiver recited in claim 20.

In addition, for the same reasons explained above in connection with independent claim 4, none of the cited references teaches or suggests a post-amplifier circuit that is configured to transmit a mode control signal over one or more common lines coupled between the preamplifier circuit and the post-amplifier circuit. Therefore, no permissible combination of the cited references could possibly have led one of ordinary skill in the art at the time of the invention to the inventive fiber optic receiver recited in claim 20.

For at least these reasons, the Examiner's rejection of claim 20 under 35 U.S.C. § 103(a) over Buescher in view of North and Jiang should be withdrawn.

V. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

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